

2CAN090203

September 22, 2002

U.S. Nuclear Regulatory Commission
Attn: Document Control Desk
Washington, DC 20555

SUBJECT: Arkansas Nuclear One, Unit 2
Docket No. 50-368
Supplement to Amendment Request for Technical Specification
Change Regarding Missed Surveillances Using the Consolidated Line
Item Improvement Process

REFERENCES:

1. TSTF-358, Revision 5 as fully modified by Federal Register
Notice 66FR32400, dated June 14, 2001
2. Letters dated January 31, June 26, and July 18, 2002, Revision of
Section 6.0, Administrative Controls For Consistency with ANO-1
Improved Technical Specifications (2CAN010203, 2CAN060203,
and 2CAN070204, respectively) (TAC# MB3959)
3. Letter dated May 14, 2002, Original Application for Amendment
Regarding Missed Surveillances (2CAN050201)
4. NRC Safety Evaluation dated June 18, 2002 for ANO-1, Proposed
Changes to Support Implementation of Conversion to Improved
Technical Specifications (1CNA060202)

Dear Sir or Madam:

By letter (Reference 3), Entergy Operations, Inc. (Entergy) proposed a change to the Arkansas Nuclear One, Unit 2 (ANO-2) Technical Specifications (TSs) to incorporate TSTF-358 (Reference 1), Technical Specification Change Regarding Missed Surveillance Using the Consolidated Line Item Improvement Process. As noted in the NRC Staff's model application, approval of TSTF-358 is contingent on the establishment of a Bases Control Program, adopted and described in the Administrative Controls section of the TSs. At the time of application, revisions to ANO-2 Administrative TSs had been proposed to incorporate a Bases Control Program, along with other changes to the Administrative TSs, under separate letters (Reference 2). However, since approval of the proposed Administrative TS changes will likely be delayed due to the large number of changes requested, Entergy desires to incorporate the Bases Control Program in conjunction with the request to incorporate TSTF-358. A separate letter will be submitted regarding the deletion of the proposed Bases Control Program from the proposed amendment in Reference 2 above.

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Therefore, in conjunction with the proposed incorporation of TSTF-358 (Reference 3), TS requirements for a Bases Control Program, consistent with the TS Bases Control Program described in Section 5.5 of NUREG 1432, Rev. 2, Standard Technical Specifications for Combustion Engineering Plants, is proposed for incorporation into the ANO-2 TSs. The addition of this program is in accordance with the NRC Staff's model application for incorporation of TSTF-358. Because the requirement for incorporation of this program was considered in the model application including the No Significance Hazards Consideration (NSHC) published in the Federal Register notice and because Entergy has stated in a previous letter (Reference 3) that the aforementioned NSHC is applicable to ANO-2, the addition of the Bases Control Program does not impact the original NSHC. A markup of the affected TS page(s) is included to illustrate the incorporation of the program. The proposed Bases Control Program contains only minor variations or deviations from the wording of NUREG 1432, Rev. 2, in order to ensure clarity in light of the current (non-standard) ANO-2 TSs format. The variations are limited to the following:

- Extra use of the word "either" in standard TS 5.5.14.b is omitted. This is an administrative change only.
- Reference to FSAR (Final Safety Analysis Report) in standard TS 5.5.14 is changed to SAR (Safety Analysis Report) in the ANO-2 TSs since the ANO-2 SAR is a living document. This is an administrative change only.
- The phrase "do not" is added to standard TS 5.5.14.d to clarify that if the Licensee does not meet the criteria for performing a Bases change without prior NRC approval as described in standard TS 5.5.14.b, then prior NRC approval must be obtained. This same change was approved by the NRC in the ANO, Unit 1 (ANO-1) conversion to the standard TSs of NUREG 1430, Rev. 1 in letter dated June 18, 2002 (Reference 4).
- The "Administrative Controls" heading is added to the top of the affected page. This is an administrative change only.

The proposed number of the specification (TS 6.5.14) will remain as proposed in the original letters listed in Reference 2 above in order to maintain consistency with the aforementioned Administrative TS changes.

In addition to the incorporation of the Bases Control Program, the standard format of NUREG 1432, Rev. 2 Surveillance Requirement (SR) 3.0.1 is proposed for adoption into the ANO-2 TS 4.01 equivalent. The purpose of this adoption is in support of an NRC request made in a telephone conversation on August 26, 2002. Although the model application and NRC Safety Evaluation (SE) supporting approval of TSTF-358 did not require non-standard TS plants to adopt this change in conjunction with TSTF-358, the SE did contain the same clarifications found in the standard SR 3.0.1 wording. Entergy agrees that adoption of SR 3.0.1 (ANO-2 TS 4.0.1) would provide added clarification relevant to the application of SR 3.0.3 as modified by TSTF-358, and therefore, proposes to incorporate this change. Because the adoption of the standard wording of NUREG 1432, Rev. 2 into ANO-2 TS 4.0.1 does not change current regulation or practice and the intent of the specification was

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discussed in the NRC approval of TSTF-358, the original NSHC is not impacted by this change. The proposed change contains only minor variations or deviations from the wording of NUREG 1432, Rev. 2, in order to ensure clarity in light of the current (non-standard) ANO-2 TS format. The font and other page formatting options are converted to mimic the standard format as closely as possible. The variations are limited to the following:

- The acronym "SR" used in standard SR 3.0.1 and SR 3.0.1 Bases is replaced with "Surveillance" or "Surveillance Requirement" as appropriate in the ANO-2 TSs and Bases. This is an administrative change only to support ANO-2 TS accepted wording.
- The term "Frequency" in standard SR 3.0.1 and SR 3.0.1 Bases is changed to "interval" to be consistent with the ANO-2 TSs and Bases. This is an administrative change only and does not change the meaning or intent of the specification.
- Reference to SR 3.0.2 or SR 3.0.3 in the standard SR 3.0.1 or SR 3.0.1 Bases is changed to the ANO-2 equivalent of 4.0.2 or 4.0.3, respectively. This is an administrative change only.
- The phrase "Required Actions" or "ACTIONS" found in the standard SR 3.0.1 Bases is replaced with the phrase "LCO Action Statements" or "Action Statements" in the ANO-2 TS 4.0.1 Bases to be consistent with ANO-2 TS terminology. This is an administrative change only.
- Reference to an "Auxiliary" feedwater pump and the acronym "AFW" in the standard SR 3.0.1 Bases is replaced with ANO-2 system terminology of "Emergency" feedwater pump and the corresponding acronym "EFW." This is an administrative change only.
- The example of testing an AFW pump at steam generator pressure of > 800 psi in the standard SR 3.0.1 Bases is changed to > 700 psi in the ANO-2 4.0.1 Bases to be consistent with the ANO-2 EFW Surveillance Requirement 4.7.1.2.b. This is an administrative change only and does not change the intent of the respective Bases.

The last sentence of the current TS 4.0.3 is also deleted because it is redundant to a sentence added to TS 4.0.1 during the above incorporation of standard TS wording. In addition, grammar is corrected in the 3rd paragraph of proposed TS 4.0.3 (an "a" should have been an "an" and the word "for" is placed between the words "allows" and "the"). Markups of the affected TS and TS Bases pages are included in an attachment to this letter. Revised pages are also included in an attachment to this letter for both the change incorporating the Bases Control Program and that associated with TS 4.0.1 for convenience.

There are no new commitments contained in this letter. As discussed in the original letter (Reference 3), Entergy will ensure a Bases Control Program is established in conjunction with TSTF-358 incorporation.

If you have any questions or require additional information, please contact David Bice at 479-858-5338.

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I declare under penalty of perjury that the foregoing is true and correct. Executed on September 22, 2002.

Sincerely,

Sherrie R. Cotton
Director, Nuclear Safety Assurance

SRC/dbb

Attachments:

1. Markup Pages
2. Revised Pages

cc: Mr. Ellis W. Merschoff
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Attachment 1

To

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Markup Pages

Administrative Controls6.5.14 Technical Specifications (TS) Bases Control Program

This program provides a means for processing changes to the Bases of these Technical Specifications

- a. Changes to the Bases of the TS shall be made under appropriate administrative controls and reviews.
- b. Licensees may make changes to Bases without prior NRC approval provided the changes do not require either of the following:
 - 1. A change in the TS incorporated in the license or
 - 2. A change to the updated SAR or Bases that requires NRC approval pursuant to 10 CFR 50.59.
- c. The Bases Control Program shall contain provisions to ensure that the Bases are maintained consistent with the SAR.
- d. Proposed changes that do not meet the criteria of 6.5.14b above shall be reviewed and approved by the NRC prior to implementation. Changes to the Bases implemented without prior NRC approval shall be provided to the NRC on a frequency consistent with 10 CFR 50.71(e).

6.6 DELETED

APPLICABILITYSURVEILLANCE REQUIREMENTS (Continued)

4.0.1 Surveillance Requirements shall be ~~applicable met~~ during the OPERATIONAL MODES or other specified conditions specified in the Applicability for individual Limiting CONDITIONS for LCOs, r-Operation unless otherwise stated in an individual the Surveillance Requirement. Failure to meet a Surveillance, whether such failure is experienced during the performance of the Surveillance or between performances of the Surveillance, shall be failure to meet the LCO. Failure to perform a Surveillance within the specified interval shall be failure to meet the LCO except as provided in 4.0.3. Surveillances do not have to be performed on inoperable equipment or variables outside specified limits.

4.0.2 Each Surveillance Requirement shall be performed within the specified surveillance interval with a maximum allowable extension not to exceed 25 percent of the specified surveillance interval.

4.0.3 If it is discovered that a Surveillance was not performed within its specified interval, then compliance with the requirement to declare the LCO not met may be delayed, from the time of discovery, up to 24 hours or up to the limit of the specified interval, whichever is greater. This delay period is permitted to allow performance of the Surveillance. A risk evaluation shall be performed for any Surveillance delayed greater than 24 hours and the risk impact shall be managed.

If the Surveillance is not performed within the delay period, the LCO must immediately be declared not met, and the applicable ACTION(s) must be entered.

When the Surveillance is performed within the delay period and the Surveillance is not met, the LCO must immediately be declared not met, and the applicable ACTION(s) must be entered. Failure to perform a Surveillance Requirement within the allowed surveillance interval defined by Specification 4.0.2 shall constitute noncompliance with the OPERABILITY requirements for a Limiting Condition for Operation. The time limits of the ACTION requirements are applicable at the time it is identified that a Surveillance Requirement has not been performed. The time at which the ACTION is taken may be delayed for up to 24 hours to permit the completion of the surveillance when the allowable outage time limits of the ACTION requirements are less than 24 hours. Surveillance Requirements do not have to be performed on inoperable equipment.

4.0.4 Entry into an OPERATIONAL MODE or other specified applicability condition shall not be made unless the Surveillance Requirement(s) associated with the Limiting Condition for Operation have been performed within the stated surveillance interval or as otherwise specified. This provision shall not prevent passage through or to OPERATIONAL MODES as required to comply with ACTION requirements.

APPLICABILITYBASES (Continued)

the trip function from occurring during the performance of an SR on another channel in the other trip system. A similar example of demonstrating the OPERABILITY of other equipment is taking an inoperable channel or trip system out of the tripped condition to permit the logic to function and indicate the appropriate response during the performance of an SR on another channel in the same trip system.

4.0.1 through 4.0.4 establish the general requirements applicable to Surveillance Requirements. These requirements are based on the Surveillance Requirements stated in the Code of Federal Regulations, 10CFR 50.36(c)(3):

"Surveillance Requirements are requirements relating to test, calibration, or inspection to ensure that the necessary quality of systems and components is maintained, that facility operation will be within safety limits, and that the limiting conditions of operation will be met."

4.0.1 establishes the requirement that Ssurveillances must be performed during the OPERATIONAL MODES or other specified conditions in the Applicability for which the requirements of the Limiting Conditions for Operation CO apply, unless otherwise stated specified in an the individual Surveillance Requirements. The purpose of this specification is to ensure that Ssurveillances are performed to verify the operational status OPERABILITY of systems and components, and that parameters variables are within specified limits to ensure safe operation of the facility when the plant is in a mode or other specified condition for which the associated Limiting Conditions for Operation are applicable. Failure to meet a Surveillance within the specified interval, in accordance with 4.0.2, constitutes a failure to meet an LCO.

Systems and components are assumed to be OPERABLE when the associated Surveillance Requirements have been met. Nothing in this Specification, however, is to be construed as implying that systems or components are OPERABLE when either:

- a The systems or components are known to be inoperable, although still meeting the Surveillance Requirements or
- b. The requirements of the Surveillance(s) are known to be not met between required Surveillance performances.

Surveillance Requirements do not have to be performed when the facility unit is in an OPERATIONAL MODE or other specified condition for which the requirements of the associated Limiting Condition for Operation CO do are not apply applicable, unless otherwise specified. The Surveillance Requirements associated with a sSpecial tTest eException (STE) are only applicable when the Special Test TException is used as an allowable exception to the requirements of a Specification.

Unplanned events may satisfy the requirements (including applicable acceptance criteria) for a given Surveillance. In this case, the unplanned event may be credited as fulfilling the performance of the Surveillance. This allowance includes those Surveillances whose performance is normally precluded in a given MODE or other specified condition.

APPLICABILITY

BASES (Continued)

Surveillances, including Surveillances invoked by LCO Action Statements do not have to be performed on inoperable equipment because the Action Statements define the remedial measures that apply. Surveillances have to be met and performed in accordance with 4.0.2, prior to returning equipment to OPERABLE status.

Upon completion of maintenance, appropriate post maintenance testing is required to declare equipment OPERABLE. This includes ensuring applicable Surveillances are not failed and their most recent performance is in accordance with 4.0.2. Post maintenance testing may not be possible in the current MODE or other specified conditions in the Applicability due to the necessary unit parameters not having been established. In these situations, the equipment may be considered OPERABLE provided testing has been satisfactorily completed to the extent possible and the equipment is not otherwise believed to be incapable of performing its function. This will allow operation to proceed to a MODE or other specified condition where other necessary post maintenance tests can be completed.

Some examples of this process are:

- a. Emergency feedwater (EFW) pump turbine maintenance during refueling that requires testing at steam pressures > 700 psi. However, if other appropriate testing is satisfactorily completed, the EFW System can be considered OPERABLE. This allows startup and other necessary testing to proceed until the plant reaches the steam pressure required to perform the testing.
- b. High pressure safety injection (HPSI) maintenance during shutdown that requires system functional tests at a specified pressure. Provided other appropriate testing is satisfactorily completed, startup can proceed with HPSI considered OPERABLE. This allows operation to reach the specified pressure to complete the necessary post maintenance testing.

4.0.2 establishes the limit for which the specified time interval for Surveillance Requirements may be extended. It permits an allowable extension of the normal surveillance interval to facilitate surveillance scheduling and consideration of plant operating conditions that may not be suitable for conducting the surveillance; e.g., transient conditions or other ongoing surveillance or maintenance activities. It also provides flexibility to accommodate the length of a fuel cycle for surveillances that are performed at each refueling outage and are specified with an 18-month surveillance interval. It is not intended that this provision be used repeatedly as a convenience to extend surveillance intervals beyond that specified for surveillances that are not performed during refueling outages. The limitation of Specification 4.0.2 is based on engineering judgement and the recognition that the most probable result of any particular surveillance being performed is the verification of conformance with the Surveillance Requirements. This provision is sufficient to ensure that the reliability ensured through surveillance activities is not significantly degraded beyond that obtained from the specified surveillance intervals.

BASES (Continued)

4.0.3 establishes the flexibility to defer declaring affected equipment inoperable or an affected variable outside the specified limits when a Surveillance has not been completed within the specified interval. A delay period of up to 24 hours or up to the limit of the specified interval, whichever is greater, applies from the point in time that it is discovered that the Surveillance has not been performed in accordance with Specification 4.0.2, and not at the time that the specified interval was not met.

This delay period provides an adequate time to complete Surveillances that have been missed. This delay period permits the completion of a Surveillance before complying with required actions or other remedial measures that might preclude completion of the Surveillance.

The basis for this delay period includes consideration of unit conditions, adequate planning, availability of personnel, the time required to perform the Surveillance, the safety significance of the delay in completing the required Surveillance, and the recognition that the most probable result of any particular Surveillance being performed is the verification of conformance with the requirements. When a Surveillance with an interval based not on time intervals, but upon specified unit conditions, operational situations, or requirements of regulations (e.g., prior to entering MODE 1 after each fuel loading, or in accordance with 10 CFR 50, Appendix J, as modified by approved exemptions, etc.) is discovered to not have been performed when specified, Specification 4.0.3 allows for the full delay period of up to the specified interval to perform the Surveillance. However, since there is not a time interval specified, the missed Surveillance should be performed at the first reasonable opportunity. Specification 4.0.3 provides a time limit for, and allowances for the performance of, Surveillances that become applicable as a consequence of MODE changes imposed by required actions.

Failure to comply with specified intervals for surveillance requirements is expected to be an infrequent occurrence. Use of the delay period established by Specification 4.0.3 is a flexibility which is not intended to be used as an operational convenience to extend Surveillance intervals. While up to 24 hours or the limit of the specified interval is provided to perform the missed Surveillance, it is expected that the missed Surveillance will be performed at the first reasonable opportunity. The determination of the first reasonable opportunity should include consideration of the impact on plant risk (from delaying the Surveillance as well as any plant configuration changes required or shutting the plant down to perform the Surveillance) and impact on any analysis assumptions, in addition to unit conditions, planning, availability of personnel, and the time required to perform the Surveillance. This risk impact should be managed through the program in place to implement 10 CFR 50.65(a)(4) and its implementation guidance, NRC Regulatory Guide 1.182, 'Assessing and Managing Risk Before Maintenance Activities at Nuclear Power Plants.' This Regulatory Guide addresses consideration of temporary and aggregate risk impacts, determination of risk management action thresholds, and risk management action up to and including plant shutdown. The missed Surveillance should be treated as an emergent condition as discussed in the Regulatory Guide. The risk evaluation may use quantitative, qualitative, or blended methods. The degree of depth and rigor of the evaluation should be commensurate with the importance of the component. Missed Surveillances for important components should be analyzed quantitatively. If the results of the risk evaluation determine the risk increase is significant, this evaluation should be used to determine the safest course of action. All missed Surveillances will be placed in the licensee's Corrective Action Program.

~~failure to perform a Surveillance Requirement within the allowed surveillance interval, defined by the provisions of Specification 4.0.2, as a condition that constitutes a failure to meet the OPERABILITY requirements for a Limiting Condition for Operation—Under the provisions of this specification, systems and components are assumed to be OPERABLE when Surveillance Requirements have been satisfactorily performed within the specified time interval. However, nothing in this provision is to be construed as implying that systems or components are OPERABLE when they are found or known to be inoperable although still meeting the Surveillance Requirements. This specification also clarifies that the ACTION requirements are applicable when Surveillance Requirements have not been completed within the allowed surveillance interval and that the time limits of the ACTION requirements apply from the point in time it is identified that a surveillance has not been performed and not at the time that the allowed surveillance interval was exceeded. Completion of the Surveillance Requirements within the allowable outage time limits of the ACTION requirements restores compliance with the requirements of Specification 4.0.3. However, this does not negate the fact that the failure to have performed the surveillance within the allowed surveillance interval, defined by the provisions of Specification 4.0.2 was a violation of the OPERABILITY requirements of a Limiting Condition for Operation that is subject to enforcement action. Further, the failure to perform a surveillance within the provisions of Specification 4.0.2 is a violation of a Technical Specification requirement and is, therefore, a reportable event under the requirements of 10CFR 50.73(a)(2)(i)(B) because it is a condition prohibited by the plant's Technical Specifications.~~

~~If the allowable outage time limits of the ACTION requirements are less than 24 hours or a shutdown is required to comply with ACTION requirements, e.g., Specification 3.0.3, a 24-hour allowance is provided to permit a delay in implementing the ACTION requirements. This provides an adequate time limit to complete Surveillance Requirements that have not been performed. The purpose of this allowance is to permit the completion of a surveillance before a shutdown is required to comply with ACTION requirements or before other remedial measures would be required that may preclude completion of a surveillance. The basis for this allowance includes consideration for plant conditions, adequate planning, availability of personnel, the time required to perform the surveillance, and the safety significance of the delay in completing the required surveillance. This provision also provides a time limit for the completion of Surveillance Requirements that become applicable as a consequence of mode changes imposed by ACTION requirements and for completing Surveillance Requirements that are applicable when an exception to the requirements of Specification 4.0.4 is allowed. If a surveillance is not completed within the 24-hour allowance, the time limits of the ACTION requirements are applicable at that time. When a surveillance is performed within the 24-hour allowance and the Surveillance Requirements are not met, the time limits of the ACTION requirements are applicable at the time that the surveillance is terminated. If the ACTION requirements are greater than 24 hours, sufficient time exists to complete the surveillance.~~

BASES (Continued)

If a Surveillance is not completed within the allowed delay period, then the equipment is considered inoperable or the variable is considered outside the specified limits and the allowed outage times of the required actions for the applicable LCO begin immediately upon expiration of the delay period. If a Surveillance is failed within the delay period, then the equipment is inoperable, or the variable is outside the specified limits and the allowed outage times of the required actions for the applicable LCO begin immediately upon the failure of the Surveillance.

Satisfactory completion of the Surveillance within the delay period allowed by this Specification, or within the allowed outage time of the actions, restores compliance with Specification 4.0.1.

Surveillance Requirements do not have to be performed on inoperable equipment because the ACTION requirements define the remedial measures that apply. However, the Surveillance Requirements have to be met to demonstrate that inoperable equipment has been restored to OPERABLE status.

4.0.4 establishes the requirement that all applicable surveillances must be met before entry into an OPERATIONAL MODE or other condition of operation specified in the Applicability statement. The purpose of this specification is to ensure that system and component OPERABILITY requirements or parameter limits are met before entry into a mode or condition for which these systems and components ensure safe operation of the facility. This provision applies to changes in OPERATIONAL MODES or other specified conditions associated with plant shutdown as well as startup.

Under the provisions of this specification, the applicable Surveillance Requirements must be performed within the specified surveillance interval to ensure that the Limiting Conditions for Operation are met during initial plant startup or following a plant outage.

When a shutdown is required to comply with ACTION requirements, the provision of Specification 4.0.4 do not apply because this would delay placing the facility in a lower mode of operation.

Administrative Controls

6.5.14 Technical Specifications (TS) Bases Control Program

This program provides a means for processing changes to the Bases of these Technical Specifications.

- a. Changes to the Bases of the TS shall be made under appropriate administrative controls and reviews.
- b. Licensees may make changes to Bases without prior NRC approval provided the changes do not require either of the following:
 1. A change in the TS incorporated in the license or
 2. A change to the updated SAR or Bases that requires NRC approval pursuant to 10 CFR 50.59.
- c. The Bases Control Program shall contain provisions to ensure that the Bases are maintained consistent with the SAR.
- d. Proposed changes that do not meet the criteria of 6.5.14b above shall be reviewed and approved by the NRC prior to implementation. Changes to the Bases implemented without prior NRC approval shall be provided to the NRC on a frequency consistent with 10 CFR 50.71(e).

6.6 DELETED

APPLICABILITYSURVEILLANCE REQUIREMENTS

- 4.0.1 Surveillance Requirements shall be met during the MODES or other specified conditions in the Applicability for individual LCOs, unless otherwise stated in the Surveillance. Failure to meet a Surveillance, whether such failure is experienced during the performance of the Surveillance or between performances of the Surveillance, shall be failure to meet the LCO. Failure to perform a Surveillance within the specified interval shall be failure to meet the LCO except as provided in 4.0.3. Surveillances do not have to be performed on inoperable equipment or variables outside specified limits.
- 4.0.2 Each Surveillance Requirement shall be performed within the specified surveillance interval with a maximum allowable extension not to exceed 25 percent of the specified surveillance interval.
- 4.0.3 If it is discovered that a Surveillance was not performed within its specified interval, then compliance with the requirement to declare the LCO not met may be delayed, from the time of discovery, up to 24 hours or up to the limit of the specified interval, whichever is greater. This delay period is permitted to allow performance of the Surveillance. A risk evaluation shall be performed for any Surveillance delayed greater than 24 hours and the risk impact shall be managed.
- If the Surveillance is not performed within the delay period, the LCO must immediately be declared not met, and the applicable ACTION(s) must be entered.
- When the Surveillance is performed within the delay period and the Surveillance is not met, the LCO must immediately be declared not met, and the applicable ACTION(s) must be entered.
- 4.0.4 Entry into an OPERATIONAL MODE or other specified applicability condition shall not be made unless the Surveillance Requirement(s) associated with the Limiting Condition for Operation have been performed within the stated surveillance interval or as otherwise specified. This provision shall not prevent passage through or to OPERATIONAL MODES as required to comply with ACTION requirements.

APPLICABILITY

BASES (Continued)

the trip function from occurring during the performance of an SR on another channel in the other trip system. A similar example of demonstrating the OPERABILITY of other equipment is taking an inoperable channel or trip system out of the tripped condition to permit the logic to function and indicate the appropriate response during the performance of an SR on another channel in the same trip system.

4.0.1 through 4.0.4 establish the general requirements applicable to Surveillance Requirements. These requirements are based on the Surveillance Requirements stated in the Code of Federal Regulations, 10CFR 50.36(c)(3):

"Surveillance Requirements are requirements relating to test, calibration, or inspection to ensure that the necessary quality of systems and components is maintained, that facility operation will be within safety limits, and that the limiting conditions of operation will be met."

4.0.1 establishes the requirement that Surveillances must be performed during the MODES or other specified conditions in the Applicability for which the requirements of the LCO apply, unless otherwise specified in the individual Surveillance Requirements. This specification is to ensure that Surveillances are performed to verify the OPERABILITY of systems and components, and that variables are within specified limits. Failure to meet a Surveillance within the specified interval, in accordance with 4.0.2, constitutes a failure to meet an LCO.

Systems and components are assumed to be OPERABLE when the associated Surveillance Requirements have been met. Nothing in this Specification, however, is to be construed as implying that systems or components are OPERABLE when either:

- a. The systems or components are known to be inoperable, although still meeting the Surveillance Requirements or
- b. The requirements of the Surveillance(s) are known to be not met between required Surveillance performances.

Surveillances do not have to be performed when the unit is in a MODE or other specified condition for which the requirements of the associated LCO are not applicable, unless otherwise specified. The Surveillance Requirements associated with a special test exception (STE) are only applicable when the STE is used as an allowable exception to the requirements of a Specification.

Unplanned events may satisfy the requirements (including applicable acceptance criteria) for a given Surveillance. In this case, the unplanned event may be credited as fulfilling the performance of the Surveillance. This allowance includes those Surveillances whose performance is normally precluded in a given MODE or other specified condition.

APPLICABILITY

BASES (Continued)

Surveillances, including Surveillances invoked by LCO Action Statements do not have to be performed on inoperable equipment because the Action Statements define the remedial measures that apply. Surveillances have to be met and performed in accordance with 4.0.2, prior to returning equipment to OPERABLE status.

Upon completion of maintenance, appropriate post maintenance testing is required to declare equipment OPERABLE. This includes ensuring applicable Surveillances are not failed and their most recent performance is in accordance with 4.0.2. Post maintenance testing may not be possible in the current MODE or other specified conditions in the Applicability due to the necessary unit parameters not having been established. In these situations, the equipment may be considered OPERABLE provided testing has been satisfactorily completed to the extent possible and the equipment is not otherwise believed to be incapable of performing its function. This will allow operation to proceed to a MODE or other specified condition where other necessary post maintenance tests can be completed.

Some examples of this process are:

- a. Emergency feedwater (EFW) pump turbine maintenance during refueling that requires testing at steam pressures > 700 psi. However, if other appropriate testing is satisfactorily completed, the EFW System can be considered OPERABLE. This allows startup and other necessary testing to proceed until the plant reaches the steam pressure required to perform the testing.
- b. High pressure safety injection (HPSI) maintenance during shutdown that requires system functional tests at a specified pressure. Provided other appropriate testing is satisfactorily completed, startup can proceed with HPSI considered OPERABLE. This allows operation to reach the specified pressure to complete the necessary post maintenance testing.

4.0.2 establishes the limit for which the specified time interval for Surveillance Requirements may be extended. It permits an allowable extension of the normal surveillance interval to facilitate surveillance scheduling and consideration of plant operating conditions that may not be suitable for conducting the surveillance; e.g., transient conditions or other ongoing surveillance or maintenance activities. It also provides flexibility to accommodate the length of a fuel cycle for surveillances that are performed at each refueling outage and are specified with an 18-month surveillance interval. It is not intended that this provision be used repeatedly as a convenience to extend surveillance intervals beyond that specified for surveillances that are not performed during refueling outages. The limitation of Specification 4.0.2 is based on engineering judgement and the recognition that the most probable result of any particular surveillance being performed is the verification of conformance with the Surveillance Requirements. This provision is sufficient to ensure that the reliability ensured through surveillance activities is not significantly degraded beyond that obtained from the specified surveillance intervals.

BASES (Continued)

4.0.3 establishes the flexibility to defer declaring affected equipment inoperable or an affected variable outside the specified limits when a Surveillance has not been completed within the specified interval. A delay period of up to 24 hours or up to the limit of the specified interval, whichever is greater, applies from the point in time that it is discovered that the Surveillance has not been performed in accordance with Specification 4.0.2, and not at the time that the specified interval was not met.

This delay period provides an adequate time to complete Surveillances that have been missed. This delay period permits the completion of a Surveillance before complying with required actions or other remedial measures that might preclude completion of the Surveillance.

The basis for this delay period includes consideration of unit conditions, adequate planning, availability of personnel, the time required to perform the Surveillance, the safety significance of the delay in completing the required Surveillance, and the recognition that the most probable result of any particular Surveillance being performed is the verification of conformance with the requirements. When a Surveillance with an interval based not on time intervals, but upon specified unit conditions, operational situations, or requirements of regulations (e.g., prior to entering MODE 1 after each fuel loading, or in accordance with 10 CFR 50, Appendix J, as modified by approved exemptions, etc.) is discovered to not have been performed when specified, Specification 4.0.3 allows for the full delay period of up to the specified interval to perform the Surveillance. However, since there is not a time interval specified, the missed Surveillance should be performed at the first reasonable opportunity. Specification 4.0.3 provides a time limit for, and allowances for the performance of, Surveillances that become applicable as a consequence of MODE changes imposed by required actions.

Failure to comply with specified intervals for surveillance requirements is expected to be an infrequent occurrence. Use of the delay period established by Specification 4.0.3 is a flexibility which is not intended to be used as an operational convenience to extend Surveillance intervals. While up to 24 hours or the limit of the specified interval is provided to perform the missed Surveillance, it is expected that the missed Surveillance will be performed at the first reasonable opportunity. The determination of the first reasonable opportunity should include consideration of the impact on plant risk (from delaying the Surveillance as well as any plant configuration changes required or shutting the plant down to perform the Surveillance) and impact on any analysis assumptions, in addition to unit conditions, planning, availability of personnel, and the time required to perform the Surveillance. This risk impact should be managed through the program in place to implement 10 CFR 50.65(a)(4) and its implementation guidance, NRC Regulatory Guide 1.182, 'Assessing and Managing Risk Before Maintenance Activities at Nuclear Power Plants.' This Regulatory Guide addresses consideration of temporary and aggregate risk impacts, determination of risk management action thresholds, and risk management action up to and including plant shutdown. The missed Surveillance should be treated as an emergent condition as discussed in the Regulatory Guide. The risk evaluation may use quantitative, qualitative, or blended methods. The degree of depth and rigor of the evaluation should be commensurate with the importance of the component. Missed Surveillances for important components should be analyzed quantitatively. If the results of the risk evaluation determine the risk increase is significant, this evaluation should be used to determine the safest course of action. All missed Surveillances will be placed in the licensee's Corrective Action Program.

BASES (Continued)

If a Surveillance is not completed within the allowed delay period, then the equipment is considered inoperable or the variable is considered outside the specified limits and the allowed outage times of the required actions for the applicable LCO begin immediately upon expiration of the delay period. If a Surveillance is failed within the delay period, then the equipment is inoperable, or the variable is outside the specified limits and the allowed outage times of the required actions for the applicable LCO begin immediately upon the failure of the Surveillance.

Satisfactory completion of the Surveillance within the delay period allowed by this Specification, or within the allowed outage time of the actions, restores compliance with Specification 4.0.1.

Surveillance Requirements do not have to be performed on inoperable equipment because the ACTION requirements define the remedial measures that apply. However, the Surveillance Requirements have to be met to demonstrate that inoperable equipment has been restored to OPERABLE status.

4.0.4 establishes the requirement that all applicable surveillances must be met before entry into an OPERATIONAL MODE or other condition of operation specified in the Applicability statement. The purpose of this specification is to ensure that system and component OPERABILITY requirements or parameter limits are met before entry into a mode or condition for which these systems and components ensure safe operation of the facility. This provision applies to changes in OPERATIONAL MODES or other specified conditions associated with plant shutdown as well as startup.

Under the provisions of this specification, the applicable Surveillance Requirements must be performed within the specified surveillance interval to ensure that the Limiting Conditions for Operation are met during initial plant startup or following a plant outage.

When a shutdown is required to comply with ACTION requirements, the provision of Specification 4.0.4 do not apply because this would delay placing the facility in a lower mode of operation.